

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A liquid crystal display apparatus comprising:

a liquid crystal layer using an Optically Compensated Bend (OCB) ~~OCB~~ mode liquid crystal having a bend orientation and a splay orientation;

a driver applying a voltage to the liquid crystal layer;

a liquid-crystal driving power supply supplying power to the driver; and

a switch outputting an on/off signal to the driver;

wherein

said liquid crystal display apparatus includes a power supply OFF sequence period which is used when a power supply of said liquid crystal display apparatus is turned off, said power supply OFF sequence period including at least a first OFF sequence period, a second OFF sequence period, and a third OFF sequence period,

i) in said first OFF sequence period, when an off signal to turn off said power supply of said liquid crystal display apparatus is output from the switch, said driver applies alternating voltages with different polarity equal to or lower than a maximum voltage which can be applied to said liquid crystal layer, said applied alternating voltages exceeding a voltage of an image display region to said liquid crystal layer,

ii) in said second OFF sequence period after said first OFF sequence period, the driver applies alternating voltages with different polarity ~~a voltage~~ equal to or higher than a critical voltage of the OCB mode liquid crystal which can be applied to each of pixels of the liquid crystal layer for a predetermined time in order to transfer said liquid crystal layer to said bend orientation, and

iii) in said third OFF sequence period after said second OFF sequence period,
~~thereafter~~ the driver applies a voltage lower than the critical voltage of the OCB mode liquid

crystal for a predetermined time in order to transfer the liquid crystal layer to [[a]] said splay orientation, and thereafter supplying of power to the driver from the liquid-crystal driving power supply is stopped to turn off said power supply of said liquid crystal display apparatus.

Claim 2 (Canceled).

Claim 3 (Currently Amended): The liquid crystal display apparatus according to claim 1, wherein

said voltage equal to or higher than the critical voltage of the OCB mode liquid crystal is a voltage at which substantially black is displayed on a display [[face]] of said liquid crystal display apparatus.

Claim 4 (Currently Amended): The liquid crystal display apparatus according to claim 1, wherein

~~when an off signal is output from the switch, the driver applies a voltage at which substantially black is displayed on a display face to each of pixels of the liquid crystal layer as said voltage equal to or higher than the critical voltage of OCB mode liquid crystal and then, applies a voltage at which substantially white is displayed on the display face, as said~~
voltage lower than the critical voltage of OCB mode liquid crystal is a voltage at which substantially white is displayed on a display of said liquid crystal display apparatus.

Claims 5-8 (Canceled).

Claim 9 (Previously Presented): The liquid crystal display apparatus according to claim 4, wherein

a pixel electrode to which an individual voltage is applied with respect to each pixel and an opposed electrode arranged opposite to each pixel electrode are disposed on the liquid crystal layer,

the voltage at which substantially white is displayed on the display face represents that a voltage between the opposed electrode and the pixel electrode, and a voltage between a gate line and the pixel electrode or a voltage between the pixel electrode and an electrode other than the pixel electrode are substantially zero.

Claims 10-12 (Canceled).

Claim 13 (Previously Presented): The liquid crystal display apparatus according to claim 1 further comprising:

a backlight connected to the liquid-crystal driving power supply to irradiate the liquid crystal layer, wherein

when an off signal is output from the switch, irradiation from the backlight is stopped simultaneously when or before a predetermined voltage is applied to each of pixels of the liquid crystal layer from the driver.

Claims 14-17 (Canceled).

Claim 18 (Previously Presented): The liquid crystal display apparatus according to claim 1, wherein

the voltage applied to each of pixels is a uniform voltage for each of the pixels.

Claim 19 (Canceled).

Claim 20 (Currently Amended): The liquid crystal display apparatus according to claim 1, wherein

the liquid crystal layer is provided with a pixel electrode which is connected to the driver and to which a pixel voltage is supplied and a specific electrode which is connected to the driver, to which a voltage different from the pixel voltage is supplied, and which is disposed via a dielectric so as to be opposed to the pixel electrode,

the pixel electrode is disposed so that at least a part of the contour of the pixel electrode is not vertical to the oriented direction of the OCB mode liquid crystal,

when [[an]] said off signal is output from the switch, the driver generates an electric field in a direction different from the oriented direction of the OCB mode liquid crystal between the pixel electrode and the specific electrode and after the elapse of predetermined time, supplying of power to the driver from the liquid-crystal driving power supply is stopped.

Claim 21 (Previously Presented): The liquid crystal display apparatus according to claim 20, wherein

the contour of the pixel electrode includes a first portion which generates an electric field not vertical to the oriented direction of the OCB mode liquid crystal but in a direction of twisting a part of the oriented-directional liquid crystal in one direction in a pixel and a second portion which generates an electric field in a direction of twisting another part of the oriented-directional liquid crystal in other direction.

Claim 22 (Previously Presented): The liquid crystal display apparatus according to claim 21, wherein

the first portion and the second portion are substantially parallel with the oriented direction of the OCB mode liquid crystal and alternately continuously formed.

Claim 23 (Currently Amended): The liquid crystal display apparatus according to claim 20, wherein

an opposed electrode arranged opposite to each of the pixel electrodes is further disposed on the liquid crystal layer,

when [[an]] said off signal is output from the switch, the driver applies a voltage for substantially white display on a display face, between each of the pixel electrodes of the liquid crystal layer and the opposed electrode, thereafter, ~~stops the supply~~ supplying of power to the driver from the liquid-crystal driving power supply is stopped.

Claim 24 (Currently Amended): The liquid crystal display apparatus according to claim 20, wherein

when [[an]] said off signal is output from the switch, the driver applies a predetermined voltage equal to or higher than a critical voltage of the OCB mode liquid crystal but equal to or lower than the maximum voltage which can be applied to the liquid crystal layer to each of pixels of the liquid crystal layer, thereafter, applies a voltage for substantially white display on a display face, thereafter ~~stops the supply~~ supplying of power to the driver from the liquid-crystal driving power supply is stopped.

Claim 25 (Previously Presented): The liquid crystal display apparatus according to claim 24, wherein

an electric field in a direction different from the oriented direction of the OCB mode liquid crystal is applied simultaneously when or after the voltage for white display on the display face is applied.

Claim 26 (Previously Presented): The liquid crystal display apparatus according to claim 20, wherein

two pixel electrodes adjacent in the oriented direction of the OCB liquid crystal mode are arranged on the specific electrode via a dielectric, and

contours of the two pixel electrodes are arranged so that they are not vertical to the oriented direction of the OCB mode liquid crystal and include a first portion of generating an electric field in a direction of twisting a part of the oriented-directional liquid crystal in one direction in a pixel and a second portion of generating an electric field in a direction of twisting another part of the oriented-directional liquid crystal in other direction.

Claim 27 (Previously Presented): The liquid crystal display apparatus according to claim 26, wherein

the driver applies voltages having phases opposite to each other to the two pixel electrodes.

Claim 28 (Previously Presented): A liquid crystal display apparatus according to claim 1, wherein

a pixel electrode to which an individual pixel voltage is applied with respect to each pixel and an opposed electrode arranged opposite to the pixel electrodes are disposed on the liquid crystal layer, and

a non-voltage region having no voltage applied to the opposed electrode is formed for each pixel in a region adjacent to a region where the pixel electrode and the opposed electrode are opposed to each other in the liquid crystal layer, and a size of the non-voltage region is such that even if the liquid crystal layer becomes bend orientation, at least a part of the region can maintain splay orientation.

Claim 29 (Previously Presented): The liquid crystal display apparatus according to claim 28, wherein a size of the non-voltage region is $400\text{ }\mu\text{m}^2$ or more.

Claim 30 (Currently Amended): ~~A liquid crystal display stopping method comprising: for a liquid crystal display apparatus including inputting an OFF signal to a driver of applying a voltage to a liquid crystal layer using an Optically Compensated Bend (OCB) OCM mode liquid crystal having a bend orientation, and a splay orientation, a driver applying a voltage to the liquid crystal layer, a liquid crystal driving power supply supplying power to the driver and a switch outputting an on/off signal to the driver,~~

said stopping method comprising:

a power supply OFF sequence step of performing a power-supply OFF sequence which is used when a power supply of said liquid crystal display apparatus is turned off, said power supply OFF sequence step including at least a first OFF sequence step, a second OFF sequence step, and a third OFF sequence step,

i) in said first OFF sequence step, when an off signal to turn off said power supply of said liquid crystal display apparatus is output from the switch, said driver applies alternating voltages with different polarity equal to or lower than a maximum voltage which can be

applied to said liquid crystal layer, said applied alternating voltages exceeding a voltage of an image display region to said liquid crystal layer,

ii) in said second OFF sequence step after said first OFF sequence step, the driver applies alternating voltages with different polarity equal to or higher than a critical voltage of the OCB mode liquid crystal which can be applied to each of pixels of the liquid crystal layer for a predetermined time in order to transfer said liquid crystal layer to said bend orientation, and

iii) in said third OFF sequence step after said second OFF sequence step, the driver applies a voltage lower than the critical voltage of the OCB mode liquid crystal for a predetermined time in order to transfer the liquid crystal layer to said splay orientation, and thereafter supplying of power to the driver from the liquid-crystal driving power supply is stopped to turn off said power of said liquid crystal display apparatus;

~~applying a voltage equal to or higher than a critical voltage of OCB mode liquid crystal that can be applied to each pixel of the liquid crystal layer for a predetermined time, thereafter applying a voltage lower than said critical voltage of OCB mode liquid crystal for a predetermined time in order to transfer the liquid crystal layer to a splay orientation by the driver when the OFF signal is input; and~~

~~stopping supply of power to the driver from a liquid crystal driving source supplying power to the driver after the predetermined period elapses.~~

Claims 31-32 (Canceled).